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NOTES ON SOME OF THE CLINICAL FEATURES OF TUMORS, THEIR ANATOMICAL CHARACTERS, MORPHOLOGICAL ELE- MENTS AND THEIR THERAPY, BY TENTATIVE, CONSTITU- TIONAL OR RADICAL MEASURES.

BY THOMAS H. MANLEY, M. D.

NEW YORK.

ON SOME OF THE PHYSIC AND
ANATOMIC CHARACTERS OF
TUMORS, AS BEARING ON A
NOSOLOGICAL DIVISION.

Heretofore our aim has been to consider the subject of oncology rather from a practical than a systematic or methodic standpoint; the clinic features, the symptomatology and pseudo-phrases of tumors than

enter on what must be now taken up if we are to place the subject on a scientific basis and illuminate it with light of the latest study and research on this important topic.

In dealing with purely histologic elements Heitzman's classification will be adopted as the simplest and most comprehensive; in the meantime, as a preliminary step, it may

be well to first group tumors according to their regional situation and their physic characters.

REGIONAL DIVISION.

1. Pericranial Tumors.—(a) Of the scalp, (b) the pericranium, (c) the cranial walls, endocranial tumors, meningeal, cerebral, etc.

2. Facial Tumors.—(a) Of the integuments and subcutaneous, soft parts; the osseous elements, (c) of the sinues and (d) of the appendages and organs, (e) of the eye ball or the orbital cavity, (f) aural, nasal or oral and those tumors.

3. The Cervical Isthmus (Cervical tumors).—(a) Glandular-adenoma, (b) vascular, (c) congenital, (d) visceral, thyroid.

4. Tumors Involving the Cervical Passages.—(a) The vertebral canal, (b) the pharynx, (c) the larynx, the trachea and esophagus.

5. Thoracic Tumors.—(a) Those involving surface organs as in the mammary and axillary regions, (b) those arising from the osseous framework, etc.

6. Intra-Thoracic Tumors.—(a) Vascular, (b) visceral, (c) interstitial organs.

7. Abdominal and Pelvic Tumors.—The number and different classes of intraabdominal and pelvic tumors is large: (a) Visceral, (b) vascular. Probably the greater number are pseudo-tumors, as hernia, erupting on the surface; ectopic, enlarged organs, abscess, etc.

8. Over the spinal areas, as the abdominal surface, there are few new growths. The intrinsic have essentially the same anatomic origin as the intracranial.

9. Tumors of the Passages.—(a) Rectal, (b) vaginal, (c) urethral.

10. Tumors of the Extremities.—The further we advance from the trunk and those organs tributary to respiration and digestion the rarer become every description of new growths, and hence, except vascular and osseous tumors, others of serious character are not very common.

Tumors are generally designated also according to the organ, struc-

ture or elements from which they develop, and hence we speak of, for example, hepatic tumor and osseous, hematoma, melenotic sarcoma, etc.

For convenience of description this arrangement, with various modifications, is adopted by all authors. For practical purposes, however, in order to avoid needless prolixity and complexity of detail two divisions are quite enough, as applied to anatomy: First, the organ or the structure involved must be indicated in the nomenclature, and secondly the finer anatomic or the new elements.

PHYSIC CHARACTERS.

Every practitioner is familiar with the importance of always cautiously interpreting the gross characters of a tumor by the aid of the senses, and let us admit it right here, that although the microscope will often serve us as available aid in obscure doubtful cases, in the vast majority the practiced, cultivated use of the senses, with ample experience, will promptly enable us to make an accurate diagnosis.

Therefore tumors are described as:

First. Solid or semi-solid.

Second. Movable or immobile.

Third. As fluid, as fluctuating.

Fourth. As tympanic—wind or gas tumors.

Besides aids derived from percussion, palpation or manipulation we utilize vision and olfaction. The position of an abdominal tumor in the female will often suggest whether it be physiologic or ovarian. The eye will give us great assistance in the periphery, at the orifices and in the open passages. The visual characters of many tumors, simply by macroscopic inspection, will often quite alone stamp their true characters.

In an ulcerating, malignant tumor the peculiar malodorous discharge can never be mistaken for anything but death-dealing cancer. The foul odor is, perhaps, not more intolerable than decomposing animal matter or hospital gangrene, and yet it is quite distinct from either.

AMITOL IN DISEASES OF THE SKIN.

By I. M. Koch, M. D., Philadelphia, Pa.
Dermatologist to the Franklin Free Dispensary.

Amitol is a coal-tar derivative, its chemical name being Para-acetyl-amid Phenate. It occurs as a powder, almost white in appearance, slightly soluble in water, freely soluble in alcohol, ether and chloroform. It has no odor.

My attention having been called to the merits of this only as a substitute for iodoform and the various coal-tar products, which are objectionable by reason of their penetrating odor or high cost, rendering their use prohibitive among the poorer classes. I desire herewith to report a series of cases occurring in the skin service of the Franklin Free Dispensary and in my private practice, where the use of amitol has been of signal benefit, proving by its local, antiseptic, astringent and anti-parasitic properties a valuable addition to remedies of this class.

Besides being of equal value with iodoform, aristol, dermatol, iatrol, etc., as a local antiseptic, it is superior to them as a healing agent, and because of its light specific gravity (less than one-third of an equal weight of iodoform) it will cover a much greater area.

Again, amitol by reason of its lower cost is an available remedy in dispensary and poorer practice, where iodoform is often used under protest on the patient's part, and is associated with the idea of some disgusting and shameful venereal disease. Indeed, at present the use of iodoform is almost limited to hospital practice, and it is the duty of the physician who wishes to hold an intelligent and discriminating clientele to find as good, and if possible better, substitute for this most peculiar, penetrating and easily recognized of drugs.

Amitol may be used in the form of a lotion dissolved in alcohol or ether, or as a salve, incorporated in one of the fatty bases, as lanolin, zinc ointment, etc. When a deep action into the hair and sebaceous

follicles of the skin is desired, lanolin is the best base, either pure or rendered more emollient by the addition of a few drops of olive or castor oil. For a more stimulating action on the glands and follicles of the skin, lanolin, mixed equal part with vaseline or one of the mineral fats, is most efficacious.

As a dusting powder, amitol used alone or mixed with one of the simple protective powders, as starch, arrowroot or lycopodium, finds a large and varied field in the intertrigos, erythemas, moist eczemas, herpes, ulcers, chancroids and chancre.

Amitol gauze, to be used as a dressing for wounds, after operations, etc., and in certain intertrigenous forms of skin disease may be made by impregnating plain gauze with an ethereal solution containing from 15 to 30 grains per yard. Amitol is manufactured and was first introduced to the profession by Messrs. Long & Co., of Philadelphia.

Case 1—Chronic Eczema.—Annie S., aet 60 years. Covering both surfaces of arms is a more or less grouped, mixed papulo-pustular eruption, which, on the leg, especially the lower third of the left leg, is decidedly pustular in character. The surface is reddened, inflamed and excoriated from the intense pruritis, extending over a period of 12 years. The legs especially show marked infiltration of the skin.

Scattered over the rest of the trunk are small papules, from the size of a millet seed to that of a pea, which itch intensely and have caused the patient much suffering. The tongue is coated, flabby, appetite poor, complains of bad taste in the mouth, bowels irregular. The following was given internally, a teaspoonful in water before meals:

R—Tinct. nucis vomicæ.....	dr. iii
Aloini	gr. ii
Spts. ammon. aromat.....	dr. iv
Tinct. gent. co.....	oz. i
Aquae	qs ad. oz. iii

Externally:

R—Creosoti m xx
 Amitol gr. xl
 Ungt. zinci ox. benz. aa. oz. ss
 Ungt. aq. rosae. aa. oz. ss

At the end of six weeks the patient was discharged cured.

Case 2—Herpes Labialis Pediculosis Capilis.—Florence H., aet 11 years. At one corner of the mouth was an acute herpetic eruption, which healed in a few days under:

R—Amitol gr. x
 Ungt. zinci ox. benz. dr. iv

On the scalp, especially at the nape of the neck, the skin was red, excoriated, covered with thick, yellowish crusts, streaked with blood; itching intense. The artificial eczema was due to the head louse, whose nits were well marked in the long hairs. The patient was directed to wash the hair in vinegar and comb it with a fine-toothed comb dipped in the same; then to apply the following wash:

R—Amitol dr. i
 Spts. vini rect. oz. v

An emollient salve containing 40 grains of amitol to the ounce was then rubbed into the scalp. In a few weeks all evidences of the parasitic irritation were completely removed.

Case 3—Impetigo Contagiosa.—Jennie M., aet 11 years. Begun three weeks before she presented herself at the clinic about the region of the mouth as "small red pimples." At the present time there is a large semi-lunar patch, covered by thick crusts on the chin, and scattered in the neighborhood over the cheeks, upper lip and eyebrows are discrete pustules, about the size of a pea, surrounded by a well-marked areola. Does not complain of itching. The patient was decidedly anemic and weak; tongue coated, bowels fairly regular. The following was given internally three times daily after meals:

R—Ferri. pyrophos. gr. ii
 Strych. sulph. gr. 1-80
 Ac. arseniosi. gr. 1-40
 Quinine sulph. gr. ss

Externally:

R—Amitol dr. ss
 Ungt. zinci ox. benz. aa. oz. ss
 Ungt. aq. rosae. aa. oz. ss

Under the above treatment the patient made a steady and uninterrupted recovery.

Case 4—Impetigo Contagiosa.—Irma S., aet 22 months, a half sister of the above case. About middle of the lumbar vertebral region was a large confluent papulo-crustaceous patch. About the sacral region and mons veneris were a number of discrete, pea-sized papulo-pustules surrounded by the characteristic areola. There were also several discrete lesions of the same character on the left cheek. The child made a rapid recovery under:

R—Amitol gr. xx
 Ungt. zinci ox. benz. oz. i

Case 5—Acute Eczema.—James G., aet 23 years, waiter. He had always enjoyed good health, with the exception of one attack of gonorrhea over a year ago. At present he complains of intense itching of his arms, body and legs, especially at night; also around his neck. The surface is red, erythematous, covered by small papules and in places on the flexor surfaces are small vesicles, grouped, containing a clear, yellowish fluid. Where these have been scratched a sero-purulent discharge covers the surface, and in the neighborhood are large excoriations. The patient looks in good health, but says his urine is dark and sometimes gives a burning sensation on urinating. He also had a bitter acid taste at times. Tongue is large, deep red and furrowed; never had an attack of rheumatism; bowels are regular. The following was given internally after meals and before retiring:

R—Salolis.
 Salicin aa. gr. v
 Strych. sulph. gr. 1-60

Externally, after cleansing the parts with olive oil:

R—Creosoti m xx
 Amitol dr. i
 Plumbi. carb. dr. ii
 Ungt. zinci ox. benz. aa. oz. ss
 Ungt. aq. rosae. aa. oz. ss

Case 6—Chronic Varicose Ulcer.—Mary O'B., aet 45 years, wash-woman. On the lower third of the left leg is an ulcer which has been steadily enlarging and causes her much trouble. It began about four years ago and has resisted all treat-

ment. She is the mother of six children and has always enjoyed good health.

The ulcer is about the size of a silver dollar. The walls are hardened. The surrounding area is congested, dark blue in color, infiltrated and covered by a thin, shining skin. The base is covered by a thick, black, adherent crust, under which is a sanguino-purulent discharge. The veins of both lower limbs, especially the left, are varicose.

The crusts were first softened and removed with olive oil. Then the cavity was washed thoroughly with a solution of pyrozone, and the base of the ulcer stimulated by a solution of silver nitrate, 30 grains to the ounce. After this amitol was dusted over the surface. Recovery was rapid after the first application.

Case 7—Chancroid—M. L., aet 31 years, salesman. About ten days before consulting the writer, while on the road, had a suspicious connection. Along the margin of the prepuce were three deep, pus-excreting ulcers, surrounded by light, inflammatory zone. They were closely in apposition, the central one and its right-hand neighbor being on the point of junction. The right inguinal glands were enlarged and painful. Amitol dusted over the ulcers caused them to dry up after the surface was thoroughly cleansed with hot water. The resultant scar was very thin and scarcely perceptible.

Case 8—Recurrent Eczema.—Elenor C., aet 28 years. The disease first made its appearance six years ago on the lower limbs. Under treatment it disappeared for three years, but since that time it has reappeared every summer, to gradually fade away as the cold weather set in. On both lower limbs, especially in the popliteal spaces, are small, red papules, which itch intensely at night, and along the tibial surfaces are long excoriations, covered by dark, brownish crusts. At times the patches are moist, but at present are rough and dry. She complains of cold feet, with a wet and clammy condition of the soles, and states that she is subject to weak, depressing nervous attacks, which leave her

much exhausted. The appetite is good, bowels habitually constipated. She has a bitter taste in the mouth morning and evening, and is much troubled by eructations of gas and severe headaches.

Internally she was given nux vomica with a bitter tonic. Externally:

R—Creosoti	m xx
Amitol	gr. xl
Ungt. zinci ox. benz.	
Ungt. aq. rosate.....	aa. oz. ss

In the course of a few weeks the lesions had entirely disappeared and the condition of her digestive functions was much improved.

Case 9—Tertiary Ulcer.—Frank Z., aet 52 years, machinist. The patient presented an ulcer about the size of a dime, which he stated had begun as a small, hard lump about two weeks previous on the lower third of the right tibial surface. The ulcer had a punched-out appearance, the walls were hard and infiltrated and the base secreted a yellowish pus mixed with epithelial detritus, blood, etc. The man had a chancre 30 years ago and had had rheumatism. The mixed treatment of hydrarg. chlor. corr. and kali iodide was given internally. Externally the ulcer resisted the most careful treatment. Calomel, bismuth subnitrate, carbonate of lead, boric acid, zinc oleate were used both in powder and ointment form, without avail. Finally the following was applied:

R—Amitol	dr. ss
Creosoti	m. v
Ungt. zinci ox. benz.	
Lanolini	aa. oz. ss

Over this a powder of amitol, one drachm to one ounce amyrum, was dusted. In a very short time the ulcer healed as if by magic, and what threatened to be a large, spreading tertiary necrosis was covered by thin, friable, cicatricial tissue.

Let me here state that in the treatment of ulcers no medicament will avail unless the walls and base of the ulcer are first thoroughly cleansed of broken-down tissues and the surface then treated with local antiseptic and stimulating applications.

Case 10—Eczema Seborrhoicum.—Isaac W., aet 17 years, packer. The disease has been confined to the

scalp for 13 years, and has remained during the last two years in about the same condition. The surface is covered by adherent, yellowish, greasy scales; singly and in groups are small red papules. Where the hair follicles emerge there are in places small pustules, which are pierced by the hair shaft. The hair dry, lustreless, but quite firmly attached. His general health otherwise is good. Under the following treatment the condition of the scalp was much improved.

Externally, to be rubbed into the scalp:

R—Amitol dr. ii
Tinct. cantharidis dr. ii
Spts. vini rect.
Aq. hamamelis dest. aa oz. iii

Internally:

R—Liq. arseni et hydrarg. iodidi. dr. i
Syr. ac. hydriodici. q. s. oz. iii
Sig.—Teaspoonful three times daily.

Case 11—Recurrent Eczema.—Wilhelm S., aet 40 years, smith. Six years ago the patient had scarlet fever. Since that time each spring about May a small papular eruption appears over the entire body. The papules are small, grouped, and itch intensely. He also had an attack of rheumatism 18 years ago. His general health is good. He was given externally:

R—Ac. carbolici. m. x
Amitol dr. ss
Ungt. zinci ox. benz.
Ungt. aq. rosae. aa oz. ss

Internally:

R—Liq. potass. arsenitis. dr. ii
Syr. ac. hydriodici. oz. iii
M. Sig.—Teaspoonful three times daily.

He improved rapidly under the above treatment. The case will be examined for uric acid at intervals, with a view to a permanent cure.

Case 12—Tertiary Syphilis.—George Z., aet 54 years, engineer. Five years ago had a chancre. At present there are two ulcers on the left knee cap, about one-eighth inch deep, which secrete a peculiar-smelling pus. They are close together, on a generally reddened, undermined surface, which, about the periphery, presents smaller ulcers of a similar character. Their walls are hard, infiltrated and have the characteristic punched-out appearance.

Amitol, one drachm to the ounce, was given locally; afterward amitol

powder was dusted over the ulcer, which was first cleansed with an antiseptic oil.

Internally:

R—Hydrarg. chlor. corr. gr. ss
Potass. iodidi. dr. iv
A. cinnamomi. oz. iii
M. Sig.—Teaspoonful in water three times daily.

A rapid improvement was noted after beginning this treatment.

Case 13—Chronic Eczema.—Rheinhold Y., aet 24 years, cabinetmaker. The eruption began six years ago, appearing on the back, chest, legs and arms. The lesions are small, papular and itch intensely. In places on the external surfaces of the arms and legs are patches showing marked infiltration, where the papules have coalesced.

These are covered by fine white scales. The patient has indigestion; tongue coated white, bowels irregular. His diet was corrected and the following given after meals and at night:

R—Salolis gr. v
Pepsinae pur. gr. ii
Pancreatin. gr. i
Strich. sulph. gr. 1-40

Externally, a lotion:

R—Amitol dr. i
Spts. vini rect. oz. ii
Liq. calcis oz. iv

Condition much improved.

Case 14—Acute Eczema.—John F., aet 14 months. Six days before consultation the eruption appeared scattered over the child's body. At present there is a group of eight papules on the chin, a smaller group on the right cheek. On the right eyelid there are two, also a few on the nose and upper lip. On both arms is a small papular eruption, especially well marked on the flexor surfaces. The integument is red, weeping and torn. Bowels are loose and bad smelling, at times, greenish in color. The child was given calomel, gr. 1-10 internally.

Externally:

R—Ac. boriei gr. xx
Amitol gr. xx
Creosoti m. v
Ungt. zinci ox. benz.
Ungt. aq. rosae. aa oz. ss

Under the above treatment a cure was rapidly effected.

Case 15—Acute Eczema.—Mrs. F., aet 36 years, mother of case 14. On the left breast just above the nipple

is a small patch, light red in color, which burns and itches intensely at times. There are a few discrete papules and pustules on a generally reddened, weeping surface.

An ointment of

R—Amitol gr. x
Ungt. zinci ox. benz.....dr. ii

The notes of the following cases, in which amitol was successfully used, were kindly furnished me by my friend, Dr. E. P. Bernardy, of Philadelphia:

Case 1.—Physician, age 48 years, suffering from eczema of the arms; very careful in his habits; not addicted to drinking of spirituous liquors; was a great sufferer from constant irritation of an eczematous cause. He had tried almost all sorts of applications, washes, salves, etc., without obtaining any constant relief. He called my attention to his case, when amitol was tried in powder form on cotton, and kept constantly applied.

The relief was soon obtained, and by its continued use for two weeks the case was cured.

Case 2.—Child about 8 years old had a stubborn attack of eczema of the face. Its stomach was out of order, but soon responded to treatment. A salve containing amitol oz. 1, ungt. petrolei oz. 1 was applied over the eruption constantly, the parts kept from contact with water. In a week the eruption was under control and in ten days more the face was clean and has remained so.

Case 3.—Girl 14 years old, had

made the rounds of skin specialists, including a few dispensaries, called at my office in reference to her condition. The entire face to about three inches below was covered with a white, somewhat scaly eruption. Diagnosis: Psoriasis. After applying several washes and salves I applied amitol dr 1, ungt. petrolei oz. 1. The case has improved so much that, while not yet entirely cured, encourages us to believe that under this treatment cure will take place. Internally she is taking hig. potass. arsenitis three times a day.

Resume.—It will thus be observed that amitol was used in three cases of chronic and in four cases of acute eczema; two cases which I have called recurrent acute eczema, because of its tendency to recur periodically whenever the conditions of the system, season, etc., were favorable; one case of eczema seborrhoicum, one case of pediculosis capitis and herpes labialis, two cases of impetigo contagiosa, one case of psoriasis, one case of chronic varicose ulcer, one case of chancroid, and two cases of tertiary syphilitic ulcers.

In all these cases it acted in a most satisfactory manner. Opportunity did not present to use it in lupus, epithelioma, rosacea or in tinea of various parts of the body. I will employ it in these affections as they come to my attention and report its action in detail at some future time.

—200 S. Twelfth street.

A REPORT ON THE USE OF SALOPHEN AND LYCETOL.

BY PAUL NORWOOD, M. D., LL. B.

Formerly Assistant Surgeon to the St. Joseph Hospital, Omaha, Neb.

During the past year I have been using salophen and lycetol in the various forms of rheumatism, in nervous conditions, and the former drug also as an intestinal antiseptic. The deductions made are contained in the following cases:

Case 1.—Married woman, age 36; a history of repeated attacks of acute articular rheumatism. She was

taken with an attack of bronchitis resulting from exposure, for which I was called. On the second day she developed a typical attack of articular rheumatism, involving the wrist joints, which were very painful and much swollen. The first day she was given three doses of five grains each of salophen and three-grain doses of phenacetine. On the second day

the pain was somewhat lessened, but I continued the same dosage. On the third day the condition warranted the withdrawal of the phenacetine, the salophen being increased to ten-grain doses every five hours. This was continued until the fifth day, when the patient was able to use her hands in feeding herself. The dose was then reduced to five grains every five hours, and this was maintained until the tenth day, when, aside from some cough the patient was very comfortable and, in a small way, resumed her work at sewing.

In this case I believe that the use of phenacetine and salophen in the beginning served to control the distressing cough. Stimulant expectorants were given later, but during the first four days I needed no other anodyne than that mentioned.

Case 2.—Married man, age 56; has had muscular rheumatism at different times during the past 30 years. Has received treatment at the hands of some of the best physicians in this country with a variable amount of relief at times. He claims, however, that my treatment has kept him more comfortable for a longer time than any other in his past experience.

This case was well-nigh hopeless, not only because of its chronicity, but in consequence of the rebelliousness of the patient in the matter of diet. He was a meat eater in an extreme sense, and I withheld the greater part of his favorite food. Thirty grains daily of lycetol in divided doses was the sole medicament. He is still under treatment.

Case 3.—Married woman, aged 48; has had five children, the youngest of which is 6 years old. She was suffering from chronic parenchymatous nephritis, due perhaps to obstruction of the ureters, by a small fibro-myoma situated posteriorly opposite the internal os. This tumor I removed with some difficulty and the part healed without an untoward symptom. The usual after treatment was followed without any change in the muscular pains originally complained of. In the second month after the operation I began to give her vapor baths and 15 grains

daily of salophen, and this treatment has been persisted in for the past two months, with the result of materially diminishing the muscular pain. It has been necessary at times to give her strychnia or digitalis. The patient is still under treatment.

Case 4.—Young man, age 17, clerk, suffering from his third attack of acute articular rheumatism of both hands and wrists. He was placed upon phenacetine and salophen, two and one-half grains each, every four hours. On the second day the phenacetine was continued in the same dose, but the salophen increased to 10 grains every four hours. Locally I applied a linament of iodine, aconite and chloroform. Patient resumed duties on the sixth day.

Case 5.—Single man, aged 28, a brass roller by trade, an ardent bicyclist, much given to racing. He was caught in the rain and taken down on the following day with his second attack of rheumatism, both ankles and feet showing articular inflammation. This was accompanied by diarrhea. I gave him 10 grains of salophen every four hours, with 5-grain doses of phenacetine as required. Locally I used the same linament as in Case 3, alternating with hot ablutions. On the third day I discontinued the phenacetine and began to give him the elixir of quinine, iron and strychnine three times daily. In this case there was a valvular murmur which I am forced to confess I was unable to diagnosticate to my satisfaction, but I believe it to have been mitral. This led me to supplement strychnia sulph. hypodermatically, in 1-30 grain doses, three times daily during the first three days. On the seventh day the patient was up and about the house, and on the thirteenth day he returned to work.

Case 6.—Married woman, aged 22, suffering from severe and constant pain in the lumbar region due, as I at first thought, to uterine displacement which existed in a marked degree. After replacement of the organ and the institution of the usual treatment, however, the pain was scarcely less than before. This naturally led me to distrust my diagnoses, at least in part, and upon fur-

ther search I found the urine contained only about 200 grains of urea and six grains of uric acid daily. I put the patient upon 2 1-2 grain doses of phenacetine and 5-grain doses of salophen every four hours for the first two days. The pain subsided to some extent and I discontinued the phenacetine and gave six grains of salophen every four hours. This treatment with a corrected diet has brought the patient to a condition of comparative health, something that she has not known for a period of six or seven years. At present she is taking 15 grains of lycetol in divided doses daily, and I look for further improvement, as the latter drug has thus far increased the secretion of nitrogenous principles. I might add that in this case the subjective symptoms were more affected by salophen, while the excretion of urea and uric acid seemed much facilitated by lycetol.

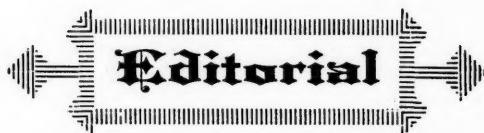
Case 7.—Unmarried man, aged about 26, a mason. History of numerous attacks of acute articular rheumatism, always of the hands and arms. He was placed upon salophen and phenacetine, 2 1-2 grains each every four hours. Locally iodine, aconite, belladonna, chloroform, turpentine and a host of other drugs were tried. There was no improvement. I increased the dose of both phenacetine and salophen to five grains every four hours. It was of no avail. On the fifth day I had to discontinue the phenacetine. During the next three days I gave him 20-grain doses of the salicylate of strontium every five hours. This was equally powerless, and I tried colchicum, guaiacum and the iodides. At about this time the dissatisfaction of the family was so evident that I could no longer appear to be ignorant of the fact and I asked for consultation. This was on the 17th day. This was met in such a way that I surrendered the case to my consultant immediately after our talk. I am ignorant of what measures were adopted, but the patient was bedridden for about five weeks, and is now scarcely able to work. I cite this case to show two things;

in the first place that some cases won't get well under any treatment within a short time, and secondly, that after a pretty fair trial (not an exhaustive one) of salophen and other salicylates, the older remedies were equally inefficient.

In two cases of pelvic peritonitis I used salophen as an intestinal anti-septic, as well as for its effect upon the kidneys, and while it is not often possible to calculate the advantage of this line of treatment I firmly believe it a proper one for every case. Salophen seems to fulfill every requirement in these cases. It is diuretic, antiseptic, antipyretic; it is not unpleasant to take and is well borne by the stomach. I have not observed any depressing action on the heart. I believe that there is a wide field for its use.

Lycetol is an elegant drug for use in patients of fastidious tastes. It is pleasant to take, and in chronic cases that have been put through a course of old treatments this is a great advance. I have used it in several cases and with what I believe to be encouraging results. My first case was a very bad one of chronic rheumatoid arthritis, and was very noticeably improved after a week on 20 grains a day in divided doses. He continued to improve, but slowly, for the following month, when he thought that he was sufficiently well to discontinue treatment. Of course his trouble returned, and he believes that the treatment was a failure. I believe it very encouraging, indeed, and advised a long course of the remedy.

My second case treated with lycetol exclusively is still under my care and is taking 20 grains daily in divided doses. This he has been doing for three months, and is quite satisfied with the results. A steady but slow improvement is noticed, interrupted to a slight degree by sudden changes in the weather. These relapses (they are hardly that) are of very little moment when compared with the previous history, and do not interfere with the avocation of the patient.



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ABSCESS OF THE INTERNAL JUGULAR VEIN.

The Transactions of the American Otological Society, 1897, contains a paper by Dr. George A. Leland, of Boston, reporting two cases of lateral sinus thrombosis with abscess of the internal jugular vein, one ending in death and the other in recovery, which is very unique and interesting. In order that the reader may appreciate the delicacy of the operations and the importance of the symptoms the cases are here cited in the author's own detail:

Case 1.—Mrs. A. M., widow, of 32 years of age, nativity Nova Scotia. Admitted to the aural service of the Boston City Hospital October 24, 1894, coming under the care of Dr. E. D. Spear in his substitution for Dr. J. Orne Green, chief of the service.

The previous and family history presented no points influencing her

present condition, except that she was of exceedingly nervous temperament and had had considerable treatment, surgical and otherwise, for neurotic or hysterical conditions. On coming to this vicinity six years ago began to have attacks of quinsy sore throat, of which she has had several; four weeks ago occurred the last attack, in which the abscess broke and discharged several times. Two weeks ago had severe pain in right ear, followed by discharge and relief of pain a few days later. Two days ago there was a recurrence of pain in and about the ear, with nausea and vomiting; was unable to retain any food. This is her first attack of ear disease. Has had indefinite chilly sensations, which led to the examination of the blood; no plasmodia found.

Left ear not abnormal; right ex-

ternal meatus contains pus and the external canal is markedly reddened; a slight perforation in the inferior segment of the membrana tympani; no swelling nor soreness over mastoid. There is a small tonsillar abscess on the right side, size of a walnut. Hearing to watch—right 0, left 20 inches. Tongue moist, slight brown fur; no tremor, no symptoms of cerebral pressure. Right ear syringed with bichloride solution, catheterized and packed with a corrosive wick; one-eighth grain morphia given for pain. Pulse 92, temperature 100 degrees.

October 25.—Feels very much better, and no pain in ear since catheterization; discharge from ear much diminished. Temperature, 103.5 degrees, but no mention of a chill.

October 29.—After sleeping pretty well until last night, when was rather restless, a chill occurred about 1 o'clock A. M. Temperature rose to 104.5 degrees. Mind perfectly clear. Pulse of good volume and strength and about 90. Throat about the same. No pain.

October 30.—Had two slight chills last night; not much rise of temperature.

October 31.—A slight stiffness of the neck on the right side this morning, with some swelling and tenderness over the mastoid region. Leiter's cold coil applied.

November 1.—The writer on coming on duty this morning found the swelling over the mastoid less than has been before noted, but marked tenderness over the jugular vein. Some slight edema posterior to mastoid and over emissary vein and posterior cervical triangle. Patient complains of stiff neck and intense pain in the head. Mild opiate given with ice bag, which produced a quieting influence, but pain still quite severe. Pulse weak and patient looks badly.

November 3.—After having had headache yesterday over the right temporal and occipital regions extending down the neck, was somewhat hysterical, perhaps mildly delirious during the night. This morning rather more marked swelling and tenderness over the mastoid region. Cold coil again applied.

November 5.—Much more comfortable and less mastoid disturbance.

November 6.—Dr. C. F. Folsom kindly saw the patient. Considered that there was no cause for symptoms to be found other than those referable to the ear, and as the pain has this morning become more severe in the mastoid, extending downward and backward, operation is determined upon.

When brought to the operating table pulse was 90, temperature 100.6 degrees F. Just before anesthesia was complete pulse became thready in character and rapidly increased to about 160. It was thought best not to continue the etherization long enough for the complete operation, and so a simple exploratory Wilde's incision was made through the thin, cutaneous and periosteal covering of the mastoid. There was very little bleeding, and the cortex was found to be not abnormal.

November 13.—Although the temperature has been irregular the patient has appeared to improve; countenance looks better, and there has been no pain and no return of headache; was able to sit up one and one-half hours to-day.

November 16.—Temperature has again risen, and there have been marked fluctuations. Return of stiffness and pain in the neck, also in the extremities. M. T., which had closed up and appeared convalescing, was again perforated by a discharge to-day. There has been varying tenderness on neck. No nausea or vomiting. Appetite poor. A severe diarrhea last three days, which was very likely septicemic, not typhoidal.

November 18.—Pulse and temperature again down to about normal, but still stiffness, with some soreness over the jugular vein. No cord ing.

On account of the extreme hysterical condition of the patient, and since up to that time cases of otitic septicemia had not become familiar, the diagnosis was not arrived at until this time.

Lest there should be malaria, the blood was examined. No plasmodiae at any time found, but there was, however, marked leucocytosis. The

first examination at entrance showed 4,000,000 red, 48,000 white corpuscles to the cubic millimeter. Examination now shows 4,000,000 red, 50,000 white.

There was no optic neuritis and the cerebral symptoms, if mild delirium at the height of the temperature could be called such, were obscure and doubtful from her extremely neurotic condition.

November 20.—Operation (in the presence of Drs. Cheever, Post, Watson, Cushing, Bullard and others).

Ether being administered, the old Wilde's incision was reopened and prolonged so as to be about two inches long. At about one-third the distance from the tip of the mastoid another was made backward, of about the same length. The periosteum was easily removed from the bone, resisting here and there but slightly; the bone found smooth and shiny. It was notable that dark, venous blood exuded copiously from numerous points. With gouge and mallet the rather thin white cortex was removed for a space of two centimeters in diameter, disclosing a pneumatic mastoid, in which the spaces were of average size and filled with thickened, very vascular mucous membrane, with here and there a purulent mass occupying the centre of the spaces. In the upper part of the cavity the here rather friable trabeculae were removed with slight force, the antrum opened and a curved director passed easily through the aditus. Here was found but very little pus. The lower part of the cavity was cleaned out with a small gouge, the trabeculae being more resistant. The bone was removed backward, including the inner wall of the mastoid, and the sinus exposed for a space of 2.5 by 1 c. m.

The membranous surface was rough, grayish and opaque, firm to pressure and not pulsating. With a probe downward and backward, separating the dura from the bone, a cavity was opened, from which flowed half a drachm or more of thin, clear, non-odorous sero-pus. The bony wall was further removed with rongeur forceps, until an opening into the sinus was found into which

a probe was passed, meeting the resistance of the thrombus itself. The inner bony mastoid wall did not appear to be much roughened. The epidural abscess cavity was explored with a probe. To make assurance sure, a sterilized hypodermic needle was now thrust through the sinus wall, downward toward the jugular bulb, and upward toward the transverse sinus, and no fluid blood could be withdrawn. The sinus wall was therefore split through the whole exposed portion at its most prominent part, and a firm, fibrinous, almost black clot revealed, which had a light yellowish mass at its centre. The whole of the presenting wall of the sinus was removed with scissors, including the area around the perforation through its wall above mentioned, as was also the thrombus, a sharp spoon being used upward and downward as far as it was thought necessary, the yellow part of the thrombus being looked upon as the infected part. The emissary vein was found thrombosed. As far as could be seen the inner sinus wall was not involved. Drs. Bullard, Watson and Cushing then agreeing that enough had been done, the entire wound was washed with corrosive solution 1:5000, and packed with iodoform gauze, hemorrhage having ceased.

Pulse at the beginning and end of the operation 120, although it was said to have fallen to 90 during it.

November 27. (Seven days after operation.)—Serious symptoms have abated and patient has been very comfortable until to-day, when slight headache is complained of. No nausea. No vomiting. Examination of eyes shows both fundi normal.

November 28.—Very comfortable. Examination of blood shows 4,500,000 red, 10,000 white, the latter being diminished from 50,000 two days before the operation.

December 1.—Has slept well and has been gaining in strength and appetite. To-day complains of general pain all over body; and temperature, which has been slowly rising for seven days, rises above 103 degrees. No eye symptoms, but neck is somewhat sore and stiff, but not markedly swollen.

Phenacetin (grains 10) was given, and pain was relieved and temperature fell to 99 degrees at 9 P. M. During afternoon complained of severe pain in head; not controlled by phenacetin.

December 4.—Patient grew rapidly worse, and at 12 o'clock at night was semi-comatose. Seen by Dr. Bullard this morning, who advised trephining of middle and cerebellar fossae.

The patient being partly unconscious a small amount of ether was given. The granulations were removed from the old wound, and dark blood rushed in from all sides; this was profuse and lasted for some time. There were no bleeding points. The middle and posterior fossae were now opened, the dura in the former appearing normal; in the latter, however, it was tense and projected into the trephine opening. No pulsation. Puncture let out a drachm of fluid. A trocar was passed into cerebellum; no pus found. After operation patient remained unconscious, and pulse was 180.

December 5—Exitus lethalis 1 P. M. (Fifteen days after the operation.)

AUTOPSY.

Austopsy by Dr. Mallory, 22 hours after death.

(Essentials only given.)

Removal of dura mater; present beneath pia of left side an exudation which was nearly serous, but showing whitish or grayish lines of fibrin slightly clouding it.

On right side exudation more marked and yellow. Some of the veins running along the fissure of Rolando filled with thick yellow pus, easily squeezed from the lumen; exudation particularly thick along the course of these veins into the pia. On removal of brain, sero-fibrino-purulent exudation covered cerebellum, pons and medulla. On right side of cerebellum was a small perforation, extending 2 c. m. into it, to the centre of the lobe. On section this tract showed slight hemorrhage, but no sign of purulent infiltration.

(The openings through the dura and skull are here described.)

In the neighborhood of these open-

ings there seemed to be the greatest amount of suppuration, and the dura was slightly adherent to the bone. Above and below mastoid opening the sinus was occluded by a small, yellowish, dense thrombus, firmly adherent to the wall; no evidence of suppuration in it, and it did not extend further than the torcular Herophili. This thrombus was apparently quite old and extended as far as the jugular foramen. The jugular vein had thickened walls and was filled with thick yellow pus; below this abscess it was apparently obliterated by the thrombus, the extent of which was not determined. The longitudinal sinus was free. In the left lateral sinus, at the entrance of the vein from the mastoid region, was a small, old papillary thrombus, one centimetre long by three millimetres in breadth and height.

No signs of suppuration in external or middle ear of right side. On section of bones mastoid cells apparently entirely removed by operation. Brain substance showed numerous blood vessels injected; slight increase of fluid in ventricles. Large vessels at the base normal. Other organs examined, but not pertinent to subject under consideration.

Anatomical diagnosis—Thrombosis with organization, and obliteration of right lateral sinus. Purulent softening of thrombus in beginning of right internal jugular. Small, old, adherent thrombus in left lateral sinus. Acute sero-fibrino-purulent meningitis. Old tuberculosis in the apices of the lungs.

Bacteriological—Streptococci in lateral sinus, and in pus of pia mater of both sides, and around cerebellum, numerous in colonies and chains, a few in longitudinal sinus. The blood, heart, spleen and liver were sterile; the kidneys contained colonies of colon bacilli and streptococci.

In this case it is to be noted that there was a streptococcus infection which had its most intense expression not in the sigmoid sinus itself, but in and below the jugular bulb, and that the meningeal infection seemed to be in a backing up from this reservoir; that the thrombus below the abscess had completely shut

off the jugular, so that there was no systemic pyemic infection, and simple ligature of the jugular would have been of no service; that the unusual and perhaps hitherto unnoticed condition of a thrombus in the opposite sigmoid sinus, without disease of the corresponding ear, might have precluded recovery; but that if the right vein had been ligated and cut off, and then irrigated upward through the sinus so as to wash out everything, as was done by Ballance, as mentioned by Dr. Adams, it might have saved life.

Case 2.—H. O. L., a boy of 8 years of age, was seen on February 17, 1897, in consultation with Dr. Twitchell, of Dorchester.

Up to a year and a half of age had been a strong, vigorous, plump child; since that time has been troubled with intestinal indigestion, and has been rather weak and puny; is even said to have had marasmus. Had chicken pox some weeks ago, which was followed on January 24 by an attack of measles, which was described as severe by the mother.

There was considerable inflammation of the mucous membranes, as shown by a croupy cough on the 27th.

February 1.—Earache on the right side, with tenderness of the scalp. Rupture of drumhead and discharge on the 3d. Pain remained severe for about a week and patient became much reduced. On the 9th there was more or less relief from pain and almost total cessation of discharge. On the 11th increase of pain on the right side of head. On the 12th patient suffered from a very severe exacerbation of earache, with tenderness and pain over mastoid region and somewhat behind it, followed by rather copious bloody discharge from the external canal. Cellulitis of considerable extent under the mastoid and behind the jaw, pain radiating down the neck. At this time he had also what was evidently a slight chill, but not a distinct rigor, and was found by his physician "almost collapsed." The chill was followed by fever, and this by a marked sweat. The bloody discharge is reported by the mother as having nearly ceased on the 14th,

but as having increased on the evening of the next day. There was marked anorexia, with an anxious, suffering expression of countenance, more or less paleness and restlessness at night. Eyebrows corrugated. This restlessness was marked from the first earache, somewhat relieved after the first rupture, but increased since the chill and the bloody discharge. At no time was the temperature found above 100 degrees F., although this was taken irregularly at the doctor's visits. There was only one more chill reported up to the present date, only, however, after very careful questioning.

Examination.—Right side of neck very much swollen two-thirds of the way to the clavicle; swelling in general diffuse, with a few nodular masses—glands; tenderness down the course of the internal jugular; mastoid not swollen, red, nor changed in contour; no edema; marked tenderness just under the meatus, in front, around the tip; tenderness over the emissary vein and posterior to and above it; slightly tender over the antrum. External meatus normal in size. M. T. bulging through its whole extent; umbo shows as a depression; dull, pale slate color; rather bluer than normal; no perforation. No light reflexes. In posterior wall of canal, about one-eighth inch from M. T., are two or three granulations, evidently marking the site of a fistula drop from the mastoid cells into the external meatus, through which exudes a very copious discharge of a reddish, purulent material, a part of the cotton wick being soaked wholly with blood. Meatus wiped out thoroughly, rapidly fills again.

Eyes not abnormal. No signs of paralysis. Temperature, 98 degrees F. Pulse of good strength, not over rapid, but as the child is nervously agitated is not counted. Passed a more comfortable night last night than previously.

Diagnosis.—Acute mastoiditis, with probable thrombosis of the lateral sinus and epidural abscess.

Operation advised immediately.

February 18.—Patient being quite weak, was given an enema, three ounces, consisting of peptonized beef

juice and whiskey, about 10.30 o'clock. At 12.30 ether was started. Child brought to the table; the cotton removed from the ear, and then the act of coughing with some little crying caused a copious, reddish, creamy discharge to well out of the ear, so as to fill the external meatus and the depressions of the auricle; wiped out, soon filled up again; no odor. Long incision made through the posterior segment of the M. T.; copious bloody discharge; if any pus was present it was masked by the blood.

Mastoid operation.—The usual incision was made; periosteum stripped from the bone; very many bleeding points through rather bluish cortex, suggesting a passively congested bone. The outer table of the process was removed with gouge and mallet, and a channel chiseled into the antrum, around which the bone, of diploetic quality, was found very friable; hemorrhage very copious, hindering the operation considerably and masking the pus if any was present.

The chiseling was carried backward and, a small piece of the bony inner wall of the mastoid being elevated, a serous, non-odorous, turbid discharge of 30-40 minims welled out. This was probably the emptying of the epidural abscess, which was small. The bone was chiseled away from the sigmoid sinus from its junction with the transverse or horizontal sinus to the jugular bulb. No pulsation to be seen or felt; sinus somewhat distended; wall had not the clear blue appearance usually found, but mottled; evidently had dark, grayish interior, not soft, as if filled with blood, but much harder to the finger. At the apex of its upward curve was a dark, soft spot.

The inner wall of the skull was rough in this vicinity, and the vascular bone was all taken away until the probe would not pass beyond the wall of the epidural abscess. A sterilized needle was used to puncture the sinus obliquely; no pus nor blood aspirated. With a bistoury an opening in the sinus was made three-fourths inch in length, slowly and with great care; interior was found plugged with a dull-colored fibrinous clot. The lips of the wound

were held open with forceps, and the clot removed piece by piece; upward until there was a considerable flow of venous blood; downward in search of the septic part, when, after removing several pieces, deep down and forward, apparently in the bulb itself, there was a gush of pus. A bent probe was passed down through the bulb into the jugular vein, when considerable pus welled up.

The probe was used to detach fragments from the interior of the vein, which were removed by forceps. Pus clear, yellow, creamy, with slightly thickened masses, came up in considerable quantities; pressure on the neck upwards caused it to well up in considerable amounts—estimated two drachms.

Iodoform gauze wicks were thrust down for one and one-fourth inches from the opening, which was slightly lower than the top of the bulb. The parts were thoroughly irrigated with a 1 to 4000 or 5000 corrosive solution; thoroughly wiped out; a long wick thrust down the jugular vein, and another one into the top of the incision through the vessel; another one into the aditus and antrum; another into the external meatus.

The bony wall of the meatus posteriorly was slightly roughened; this was scraped and a part removed with forceps. Iodoform compress applied, followed by sterilized gauze and bandage.

Patient came out of ether very well. Pulse remained good throughout, and the color of the face was apparently better after the operation than before.

February 22d. Patient has had an erratic temperature—see chart. Feels perfectly well; complains only of hunger. No pain except at the left sterno-clavicular articulation which is the seat of a pale, very sensitive swelling, not oedematous, too tender to press for pitting; no redness around wound, swelling of the neck entirely disappeared.

First dressing.—On removal of the wick from the sinus opening, a watery pus follows and considerable can be squeezed out by pressure on the neck under the ear. The probe does not pass so far down as before. Packaged and again well covered; slight

amount of discharge from the ear. Wound very clean, granulating rapidly. (The day after the operation, the dressing having soaked through, was partly changed.) Temperature 105.2 degrees at 8 P. M.; last night at 8 o'clock temperature 104.6 degrees—perhaps caused by removing patient to operating room and back again.

February 24th.—Patient has been very comfortable; sleeps well; takes nourishment well; no disturbance of stomach or bowels; no headache, no pain anywhere, except slight at the swelling above and to the left of the sternum, which has extended somewhat upward and outward. It is a question whether this was a cellulitis from involvement of the joint, or an angio-neurotic edema. There was no other similar swelling or other evidence of metastasis anywhere.

At the dressing to-day a larger amount of pus was pressed from jugular than two days ago, of thicker consistency, and a curved probe was passed downward about one and one-half inches from the opening, the

sinus wound having partly closed. Dressing was done in bed without disturbance.

There was noted to-day a slight increase of swelling in anterior cervical triangle, but no cording of internal jugular and no tender spots in its course. External jugular markedly increased in size.

February 28th.—Dressed every other day. Swelling above sternum was gone on 25th, and to-day no pus in sinus and none can be pressed from jugular.

March 5th.—Wound nearly granulated in, and there is almost no pus. Sat up one-half hour to-day. Temperature has been practically normal since evening of 24th ult.

March 13th.—Cocoon applied to wound, and patient returns home. Has been growing stronger, and is up and about, but gait still unsteady.

March 26th.—Wound entirely healed. Third cocoon removed and patient dismissed. Politzer's acou-metre and whispered numbers heard readily more than twenty feet.

CEREBRAL LOCALIZATION—IS THERE SUCH A THING?

One would suppose by a casual glance only through many of our latest text-books, and some of the rather overdrawn descriptions of operations over the crano-cephalic area, that cerebral localization had come to be regarded as one of the fixed doctrines of medical science.

The writer three years ago demonstrated in the report of more than 100 cases of fracture of the skull, attended with more or less brain damage, that there was practically nothing found to support the doctrine of cerebral localization; on the contrary, the cerebral manifestations bore so little relation to the site of injury as to stamp it another of the modern fallacies and delusions, certainly as far as cephalic traumatisms were concerned, though it was hoped that it might hold good for pathologic conditions. But at Moscow, in

the extended discussion bestowed on brain surgery, it was quite the general concensus of opinion that symptomatology was not to be depended on as a guide to locating cerebral lesions. For example, it was stated that in about one case in ten pointing to a tumor, one was found, and in the other nine it was absent.

When the growth advanced toward the periphery of the vault or base and pressed on the meninges or nerve-roots, its lodgment might be traced.

This would go to prove that cerebral localization, the physic diagnosis of intracranial lesions, has not developed into anything which will stand comparison with that, quite efficient and definite in lesions involving the viscera of the thorax or abdomen.

OLD WINE IN NEW BOTTLES.

In last issue we invited the attention of our readers to a few phases of the fracture question, and showed that from complicated mechanical appliances we have returned to the practically do-nothing policy; or do something that 20 years ago would promptly put the operator—perpetrator—behind the bars.

Please note the latest from the Moscow Congress on this head, and ponder whether we lately over-drew the picture and whether events of the past for the cumbersome, useless, complicated adjustments, filling whole books to describe, have not most emphatically spelled out "failure."

*"The old principle that fractures must be immediately immobilized and then kept absolutely quiet until the healing process is completed received some serious blows. Dr. Lucas Champonnier, of Paris, has been treating all fractures for years without apparatus and with immediate massage and passive movements. He has obtained particularly satisfactory results in fractures of the upper and lower end of the humerus, those about the elbow and in fractures of the clavicle—the fractures for which the most varied apparatus have been invented, the greatest care in absolute immobilization taken and in which, notwithstanding it all, the results have, as a rule, been anything but satisfactory. Dr. Champonnier and his ideas were confirmed by others who use only the simplest forms of temporary bandage. By this treatment Dr. Champonnier has obtained in the short period of three weeks solid union without noticeable deformity.

"Some of the best Roentgen-ray pictures of the hand exhibited in the

surgical section of the Congress were taken without the use of a Ruhmkorff coil. An ordinary two-plate Wimshurst static electric machine, with a Leyden jar in the circuit, had been used to produce the X-rays. The result was so good that some of the histologic details of the bones were clearly developed. With slight changes the same means may be used for a radioscopic work, and it would seem as though some simpler and less expensive, also less technical, means of producing these now so valued pictures may result from further experimentation."

But M. Champonnier should be candid and as his surname is Justin, be just, for we more than three years ago, in a contribution on the "Influence of the Circulation in Fracture," showed both by experiment on the living animal and clinic observations on the human being, that early and rigid fixation was a mistake. the frog's webbing, the turtle's vessels and the delicate tissues of the kitten that for the great preponderance of fractures the best prosthetic apparatus for the average fracture was none at all.

Something more than one year later, at Atlanta, we again re-echoed the same sentiments with greater emphasis as applying to juvenile fracture.

"Boiled down" the milk of the cocoanut is simply this: Discard absolutely in the preliminary dressings every kind of fixation which may embarrass the circulation. Festina lente; hurry not about setting for some days, if necessary, with rigid fixtures, and, of all things, cautiously and easily put the muscles and joints into action.

*Letter to Medical News, Sept. 25, '97.





Book Reviews.

THE AMERICAN ACADEMY OF RAILWAY SURGEONS. Report of third annual meeting, Chicago, September, 1896. Edited by R. Harvey Reed, M. D., Columbus, O.

This little volume is the transactions of the Academy at its third annual session, and contains the reports of the Association and some very valuable papers on railway surgery.

ABOUT CHILDREN. Six Lectures given to the Nurses in the Training School of the Cleveland General Hospital in February, 1896. By Samuel W. Kelley, M. D., Professor of Diseases of Children in the Cleveland College of Physicians and Surgeons (Med. Dept. Ohio Wesleyan Univ.), Editor Cleveland Medical Gazette. 180 pages. Price, in buckram, postpaid, \$1.25. Cleveland: The Medical Gazette Publishing Company, 1897.

Dr. Kelley has given in these lectures some very practical points in the nursing of children, which it would be well for not only nurses, but physicians and mothers to bear in mind. The first lecture is devoted to the early infancy nursing and especially contains good points on infant feeding. The second lecture is about the child in health, and the third the child in pathological conditions. Lecture four treats of the symptoms of various diseases and their indications. Lecture five the nursing and management of sick children, while lecture six is devoted to artificial feeding and sterilization.

PRINCIPLES OF MEDICINE. By Charles S. Mack, M. D., Chicago. Published by The W. T. Keener Co., 96 Washington street, Chicago. Price, \$1.00.

In this little book the author tries to prove that the only principles of medicine are those of the homoeopathic school, viz., *similia similibus*

curantur, and that this is "a law of nature." He discusses the arguments now brought against homoeopathy and tries to smooth over the discrepancies as practised by the present school of homoeopathy and that established by Hahnemann. Suffice it to say that he has not yet converted us or made the homoeopathic fallacies appear any clearer than before as proving the truth.

ILLUSTRATED SKIN DISEASES: An Atlas and Text Book, with Special Reference to Modern Diagnosis and the Most Approved Methods of Treatment. By William S. Gottheil, M. D. New York: E. B. Treat & Co., Publishers, 241-243 W. 23d street. Price, \$1. Portfolio. Copyright, 1897, by E. B. Treat & Co.

The issue of the above work marks an epoch in American dermatology.

Many of its most striking and unique features are entirely original.

There have come to our hands as yet but four portfolios, and hence it will be impossible at this date to consider the whole scope of a work one-fourth of which only is yet published.

There are two prominent features in this superb work, which even the casual reader must note, running all the way through it, and those are the ones which give it its great practical value. The arrangement of the subject-matter is simple—like the text—brief and clear. With this is a copious and accurate photographic illustration on colored plates of the various cutaneous lesions.

Of late years dermatology has sustained a great impetus through bacteriologic science; an immense flood of light has been let in on many dermal eruptions hitherto imperfectly understood. Gottheil devotes ample space to this important class.

His etiologic classification and his

broad, rational therapy will strike the experienced practitioner as of special value.

Heretofore Americans have had to depend chiefly on European sources for anything like comprehensive atlases and text-books on dermatology, besides, their great expense prohibited their general purchase.

Professor Senn in his matchless oration at Philadelphia dwelt with special force on the importance of encouragement to our own authors; and "literary independence in our profession in America." This is as it should be, provided the home ar-

ticle is of equal merit to the imported; and no one will lay down this volume, who has carefully perused it, without conviction that the author has done his work well. It certainly is one of those productions which has come to stay for some considerable time as the best exponent of the subject it deals with; besides, its low price places it within the reach of all.

The publishers part has been well performed. The text is large and clear, the paper thick and heavy, the colored photo lithographs singularly clear and natural.



ELECTRICITY AS APPLIED TO MEDICINE AND SURGERY.*

The discoveries, inventions and developments in electricity which the last twenty years have brought forth have naturally given electro-therapeutics an impetus that bids fair to make it the most versatile and at the same time the most positive curative agent known to humanity, and I hope the time may soon come when every member of our profession will be prepared to use this agent with a full understanding of its scope and action.

It is unquestionably true that in order to manipulate the electrical current some preparation and study is necessary, and I regret that this should be one of the reasons that prevents physicians from using it. However, the difficulty is not as great as many imagine, and with judicious reading and some practical instruction this obstacle may be overcome by any physician desirous

of adding this powerful curative agent to his equipment. There are several text books which give all the necessary information on electrophysics, electro-physiology and electro-therapy in a concise manner, and these being thoroughly understood the handling of the apparatus and the scientific application of electricity can be easily learned.

Another objection to the more general use of electricity is the expense of an installation. There certainly are a great variety of instruments in the market, some very elaborate and ornamental, others more simple, but all more or less expensive. There being a limited demand as yet for medical electrical apparatus it is natural that manufacturers should have to charge apparently exorbitant prices, but when the demand in-

*Read before the Fairfield County Medical Society, October 13, 1896.

creases, competition will arise and prices will be reduced. Experience has taught me that the simplest and least complicated apparatus is always the best, and if the essential features for scientific accuracy are present the appearance of the instrument is of little consequence.

It is not the purpose of this paper to go into a detailed description of all the different forms of batteries and other generators of electricity, but I shall confine myself to an enumeration of the different forms of the agent that can be used in our work as physicians or surgeons.

There are four principal currents, subdivisible according to the method of application. They are:

1. The galvanic current.
2. The faradic current.
3. The static current.
4. The sinusoidal or alternating current.

Each one of these is possessed of different physical and therapeutic properties, and it is on a judicious selection of the form of current in each case, where the use of electricity is indicated, that success in electro-therapy depends.

Following are the usual terms employed in medical electricity:

Amperage, means the volume of current.

Voltage expresses the speed or pressure.

Ohm represents the unit of resistance to be overcome by the current.

We will now briefly consider the different currents and their characteristics and will begin with galvanism.

The galvanic current used in medicine is of low voltage but high amperage, comparatively. It can be best generated from a number of cells of the Leclanche type on account of their durability; from 40 to 50 of these cells are necessary. The bichromate of potassium cell is also used, but becomes exhausted much sooner than the first named.

The galvanic or direct current flows steadily and always in the same direction, from positive to negative. Its action is principally chemical, but in a small degree mechanical. It does not produce shocks or muscular contractions ex-

cept when interrupted or in opening and closing the circuit. In flowing through the tissues the galvanic current acts principally on the liquids contained therein, decomposing them and breaking up the atomic combinations and rearranging them, hydrogen and the alkalies going to the negative pole, while oxygen and the acids collect at the positive. Besides this chemical action the galvanic current is a stimulant to the circulation of blood and lymph. Furthermore the positive pole has a sedative action on the sensory nerves, while the negative pole produces hyperesthesia. Another property of the current is its ability to carry substances with it through the tissues, and this is called cataphoresis.

These different actions of the galvanic current are made use of to remove exudations, swellings or congestion, to increase nutrition of all the tissues, nerves included, to stimulate absorption and to assist disassimilation. The sedative property of the positive pole may be applied to relieve neuralgia and all pains caused by local irritation.

Cataphoresis enables us to introduce substances into the tissues in order to bring about certain effects—for instance, cocaine to produce anesthesia.

The electrolytic or decomposing property of the current, which is strongest at the poles, may be taken advantage of to generate certain localized chemical action.

The negative pole, as stated above, gathers about it hydrogen and alkalies; these latter have a softening influence on the tissues with which they come in contact.

It is on this principle that electrolysis of urethral strictures is based, the negative pole, consisting of a metallic bulb on a bougie, being brought in contact with the stricture, and a mild current turned on. It will soon be noticed that the stricture yields, and after a small number of applications the stricture is removed and the patient often cured.

An operation with the knife, or dilation, is only exceptionally successful because it does not remove the hard cicatricial tissue, but only

stretches or cuts it, leaving it fully able to do more mischief later.

I consider electrolysis for urethral strictures one of the greatest triumphs of electro-therapy. This same action of the negative pole is made use of to remove hair, blemishes and small growths from any part of the body. The electrolytic effect at the positive pole consists in the accumulation of oxygen and acids, the hardening of tissues and their depletion of blood. It is thus that the bleeding from the uterus may be arrested in certain forms of endometritis, as well as in cases of interstitial and submucous fibroids of that organ. If the electrode forming the positive pole is of metal the acids accumulating around it will soon attack it and salts be formed; for example, in a case of a copper electrode, the oxychloride of copper will appear, or with a zinc electrode the oxychloride of zinc will be evolved. These salts are not only in contact with the tissues, but by cataphoric action are driven into them to a certain depth, producing their specific effects. This is called metallic electrolysis.

The galvanic current is also used to ascertain the reaction of certain nerves of the body to the opening and closing of the galvanic current flow, and according to certain established facts and rules it can be seen whether the nerves are in a healthy state or not. In this way is discovered the so-called reaction of degeneration.

The faradic or induced current has a small amperage, but a more or less high tension, which varies according to the secondary coil employed. It is probable that this current has but a very small chemical action, but it is a powerful stimulant to the nerves, muscles and blood vessels. If the secondary coil is of heavy wire of moderate length the current produced is stimulating, even irritating, and if applied to a painful spot will increase the pain. It is principally used to relieve muscular atrophy, peripheral paralysis, malnutrition of the parts and under-development.

In gynecology long coil currents are found useful in cases of dysmenorrhea, caused by lack of tone

and immaturity of the uterus and ovaries, and also in hyperinvolution.

The faradic or induced current from a coil of fine wire of great length has a sedative action. It is generally employed to relieve deep-seated pains, such as ovaralgia and general neuralgia. There is no limit to its uses for the relief of pain, and it is one of the most trustworthy, as well as most harmless, remedies existing.

The sinusoidal or high tension alternating current has not been used for a sufficiently long time to enable one to fully form an idea of its scope as a therapeutic agent; it is generally employed for its sedative effect, and as its application is almost entirely devoid of pain many use it in preference to the long and fine wire faradic coil.

We now come to the static current, which has an enormous voltage, but only an infinitesimal amperage. Its uses are manifold.

The principal effect of a static current is stimulation. It is a powerful agent for the increase of capillary circulation, and it stimulates the functions of the skin, as can be readily seen during an application of this current, when perspiration becomes quite abundant. In neurasthenia and general debility its action seems most marked, and in chronic muscular rheumatism, also, it is of unquestionable value.

There are a great variety of diseases in which electricity in one form or another will prove of the greatest value, and those who have sufficiently interested themselves have at their command a means of giving quick relief and permanent benefit.

However, electricity is not a panacea for all ills, and the cases to be treated should be carefully selected. Nor is it just that all chronic cases in which about every known remedy has been tried in vain, should be thrown on electricity, and then if that agent fails to perform a wonder to decry it as of no use and of no account.

For electro-cautery work a battery of large amperage and very low voltage is required. By the aid of

this instrument it is possible to remove portions of soft tissue without the loss of blood. It is very useful in surgery of the nose and throat, and in all instances where a cautery can be used.

A few words about electricity for diagnostic purposes. The small incandescent light has been used to illuminate the cavities of the body, such as the nose, pharynx, larynx, ear, stomach, rectum, vagina, bladder, etc. Powerful electric light has also been used for translumination.

The latest and most wonderful addition in this line is unquestionably the X-ray, discovered early this year by Professor Roentgen, of Wurzburg. With the aid of these rays it is possible to obtain a clear outline of organs and structures of our body, otherwise absolutely invisible, and it is hardly worth while to call attention to the marvelous possibilities opened to us by this discovery, which is as yet only in its infancy.

We are at present able to find foreign bodies imbedded in the tissues, such as fragments of glass, needles, bullets, etc., by the aid of the X-rays.

It is also an easy matter to determine any abnormalities in the bony structure of the body; we can see the heart and its movements, as well as the liver and other opaque organs. In case of fracture we can by means of the X-rays determine the extent of the displacement, and after the reduction of the latter it is an easy matter to see through bandages and determine whether the fragments of bone are in proper position for union or not. Dislocations of joints can be clearly seen, and proper treatment instituted. In ankylosis of joints it is possible to determine whether the offending overgrowth of tissue is of bony or soft structure. Diseases of bone, such as tuberculosis or cancer, can be detected, and the extent of the disease ascertained.

These are some of the principal uses of electricity in our work, and although I realize that justice cannot be done to the subject in a brief paper like this, if I have succeeded in interesting some of you I shall feel that my purpose has been accomplished.

—Frederick Schavoir.



PRACTICAL SUGGESTIONS IN THE MANAGEMENT OF DYSPEPSIA.

J. J. MORRISSEY, A. M., M. D.,
Associate Professor of Practice in the New York School of Clinical Medicine,
Visiting Physician to St. Joseph's Hospital.

The prevalence of indigestion among American business men has been so largely on the increase that it is assumed by foreigners to be a characteristic accompaniment of success. There is a great deal of truth in this assumption, inasmuch as we regard our system as a perfect piece

of machinery, which is wound up every morning and guaranteed to run for so many hours without friction. During the day, as a sort of a bribe, we hurry to a "quick lunch" restaurant and eat a sandwich with a rapidity that is wonderful to contemplate, follow it with apple pie,

drink a cup of coffee and then hurry back to business. The stomach at first adjusts itself to the extraordinary demands made upon it in consequence of the indigestible sandwich and the late dinner seasoned with piquant sauces and pungent condiments, and like the patient camel carries burdens it was never prepared to bear, but in time it rebels and the day of reckoning arrives. Then business is forgotten, the various spas are visited, years are passed striving to regain what the exercise of a little common sense would have prevented.

The dyspeptic is a naturally irritable person, spare, generally carrying upon his features the impressions of his hard-fought battles, and constantly complaining of indigestion, acidity and flatulence.

He is generally somewhat melancholy in his temperament, and a hypochondriac in disposition. He has cold hands and feet, is constipated, and the capillary congestion of his face indicates a cirrhotic process going on in the liver. He is easily "winded," and complains of the frequency with which he arises at night or very early in the morning to pass urine. His pulse is hard and tense, and on examination the heart will be found to have a large, left ventricle and an accelerated second sound, presenting in a word the phenomena and sequelae of an interstitial nephritis. Unfortunately for the individual so afflicted the latter process may follow an insidious course for years without attracting the attention of the patient. It is only when some intercurrent malady compels him to consult a physician that he is made aware that his cephalgia, his frequent urination, his perturbed spirits, his irascible demeanor, all point to the contracted kidney and the non-elimination of toxins as their causative factor.

It cannot, therefore, be too seriously insisted upon that when a patient presents himself or herself—but women are more apt to suffer from the various forms of intestinal indigestion—with the symptoms of aggravated dyspepsia, the closest examination of the heart and kidneys should be made. Not a mere per-

functory examination, unsatisfactory alike to the patient and the physician, but a thorough overhauling of the entire system, especially the two organs whose associations are so intimately connected as the heart and kidneys. The accentuated aortic second sound, the cirrhosis of the liver, the shrinking kidney, these are all sequelae of one cause, prolonged high arterial tension. The latter, independent of organic disease of the heart and kidneys, appears to be due to sedentary occupation and excessive eating and drinking. These lead to defective assimilation and elimination, and also to the probable development of toxines in the circulation which have an inhibitory and irritating effect upon the arteries.

A vicious circle is thus produced that embraces within the area of its circumference the entire system. The circulation being impeded, there is a gratuitous hypertrophy of the left ventricle produced. If at this time the patient is warned of his condition and obediently follows out the strict injunctions of the physician his distress may be considerably abated, but if he pursues the tenor of his way, the waste-laden condition of his blood will lead to increased arteriole spasm, the circulation will become correspondingly obstructed and ventricular failure must follow as an inevitable consequence.

It is a well-known fact that hypertrophy may be maintained for years if the muscular tissue of the heart is healthy, and if it receives a sufficient supply of healthy arterial blood, but the latter cannot be maintained if it is laden with waste products, generated in the alimentary tract, and followed by the toxines, which have such an irritating effect upon the nerves of the heart.

This is commonly the history of the dyspeptic individual, who has broken down his health in order that he may accumulate a fortune, most of which is afterward expended in striving to regain what he has irretrievably lost. Frequently afflicted in mind, for he is distinctly "neurotic" in his composition, overworked in body, he often ends his busy career by resorting to the coward's

panacea, suicide. Such people are generally excellent workers. They are never so contented as when formulating and executing great schemes. For them idleness possesses no attraction; on the contrary, the higher the pressure the greater the contentment, but when the final crash comes they find themselves walking on the edge of a precipice.

These cases demand our most serious consideration. In the first place a strict system of diet must be ordered, and the consequences of its evasion pointed out in the most decided manner. They are not generally at this period large meat eaters, for meat appears to increase the uric acid in their systems and the production of the latter interferes with the solvent properties of the gastric juice. The food of the patriarchs, "corn and wine and oil," is best suited for their limited powers of digestion. Fruit is allowable, and fish, though at times the latter seems to increase the sense of pressure at the "pit of the stomach," from which they so loudly complain. Milk, too, taken warm and slowly sipped, may be indulged in, even by those who assert they never can take milk without curdling. If the dyspeptic will take from twenty minutes to half an hour to drink a glass of milk he will generally have no difficulty. In a great many of those "neurotic" dyspepsias the liver seems to be "insufficient" to properly perform its functions, and requires the therapeutical assistance of mercury at night, followed by a seidlitz powder in the morning. If the stools are tarry a small quantity of podophyllin is very effective. Sometimes phosphate of soda in a glass of warm, yes, hot, water has a remarkable effect in relieving the pain from which this class suffer.

It is quite wonderful to witness the exhilaration that frequently follows in the morning the night administration of a blue pill, plainly indicating what an important factor in the internal economy is the much abused liver. Lord Byron found Epsom salts the best means of dissipating the fogs of despair, but in this regard every patient is a law unto

himself, and must be judged from an individual standard.

For the lithiasis which usually accompanies this dyspeptic neurosis, lithia is excellent, and in many cases Cantani's alkaline powder composed of soda bicarb, carb. lithium, and citrat. potash is quite effective. As we have observed above, we again wish to emphatically assert that each case must be carefully considered on its own individual merits. Some do not bear potash well at all; soda phosphate is their laxative.; others are attached to Carlsbad salts.

The routine treatment of indigestion by the various preparations of pepsins, pancreatins, malt extracts, etc., etc., cannot be too strongly condemned. Their use is frequently a tacit admission on the physician's part of his ignorance of prevailing conditions. Not that they should be absolutely condemned, far from it; they have their uses very accurately defined, but their field of activity is exceedingly limited. Brilliant experiments in the laboratory carried to a victorious termination are not always successful at the bedside, for clinical experience has proven again and again that the human system cannot be converted into a retort for every species of chemical elaboration. As an example we may mention one of the ingredients of Cantani's powder which we have mentioned, namely carbonate of lithium. It ordinarily forms with uric acid the most soluble compound. Taken internally it appears in the urine in combination with chlorine, as the chloride of lithium, a most insoluble substance.

The cold bath in the morning when used judiciously cannot be too highly recommended in suitable cases. It should be followed by brisk rubbing with a coarse towel, and supplemented with easy exercise. For those who are afflicted with insomnia, the hot bath at bedtime is conducive to a good night's rest. The question of exercise in these cases is all-important, and in this regard the ubiquitous bicycle cannot be too highly praised, when used moderately. On the other hand, the tendency toward "scorching" cannot be too severely con-

demned. Hard and fast riding, especially in those who have passed middle life, very frequently brings into prominence an hitherto unsuspected heart or kidney lesion, and if the kidneys be at all insufficient in action, the increased metabolism generated by the active exercise may induce an acute process to supervene upon the chronic degeneration, manifesting itself by the presence of blood, casts and increased albumen. None of these sequelae need be feared when the bicycle is used under a physician's advice, and the latter strictly followed. The class of people which the bicycle would benefit most are those whom it usually injures, as they do not use, but abuse, this excellent machine; that is, those of sedentary occupations, and who have passed the meridian of life. There is no form of exercise, it may be asserted, that will so quickly reduce the chronic cerebral congestion of brain workers. It rouses the dormant energies of the fatigued intellect, it dissipates the lassitude following continued mental labor, it increases the oxygenating capacity of the individual, and all his vital

processes are awakened into renewed activity. The circulation of the blood is more rapid and, what is of greater consequence, its oxygen carrying power is increased, so that every portion of the system throbs with the joy of physical well-being. But here a note of warning must be given. To those afflicted with weakness of the walls of the heart, and especially where fatty degeneration exists, the bicycle becomes an easy method of suicide. It is those cases which furnish the daily press with the sudden deaths after a hard ride, foolishly undertaken at the expense of life. As to the digestive organs, they, too, share in the generally increased functional activity of the internal system. A richer blood supply imparts renewed energy to the gastric juice and the latter is better prepared to meet the heavy demands made by the increased appetite of the rider.

Thus the whole system undergoes an awakening of its latent activities and each organ shares in the benefits accruing from moderate bicycle riding.

Current Medical Literature.

SIMPLE OBESITY.

Thyroid feeding has lately become one of the most popular methods of treating obesity. Extensive clinical observations have shown that considerable reduction in weight can be secured under this treatment without subjecting patients to the annoyance of a radical change of diet. It is true that unpleasant and even serious symptoms have been observed after the administration of thyroid extracts, and these have been attributed to the presence of toxic decomposition products. By the em-

ployment of iodothyroine on the active principle of the gland these unfavorable symptoms can, however, be practically obviated. Dr. Lutaud, of Paris, who has used iodothyroine in 17 cases of simple obesity, concludes that "this substance will, without the aid of other treatment, bring about a reduction of weight without giving rise to serious complications." In five cases there was a rapid improvement and diminution in weight after 15 days' treatment, no other medicine being employed, and in four of these the loss in weight varied from one to six kilos during this

period. In 12 other cases, in which a dry diet and purgatives were also prescribed, the average loss in weight was four kilos after 15 days' treatment. It would seem, therefore, that iodothyroxine is a real acquisition to the therapeutics of obesity, and that it is a substance of definite composition, free from by-products and that its dosage can be accurately graduated, rendering it far superior to other thyroid preparations.

ON THE TREATMENT OF CYSTITIS WITH AMMONIACAL DECOMPOSITION OF THE URINE WITH UROTROPIN.

Reported from the University Medical Clinic of Göttingen.
BY PROFESSOR ARTHUR NICOLAIER, M. D.

It is now about two years since I introduced hexamethylentetramin, the combination of formaldehyde and ammonia, into therapeutics under the name of "Urotropin." I had selected this name as the result of observations which showed that when sufficiently large quantities were administered internally the drug passed unchanged into the urine, and altered it in various respects. Not only is the excretion greatly increased in quantity, but it acquires the property of solution of uric acid, without losing its acid reaction, and, at incubator temperature, the urotropin acts as a hindrance to the development of micro-organisms. On the basis of these observations I used urotropin in suitable doses in the treatment of uric acid concretions and bacterial diseases of the urinary passages, and the results of these therapeutic experiments were so favorable that I determined to publish them.* Since that time I have had further experience of the successful use of urotropin and certain of its combinations in these disease conditions. These I intend to publish somewhat in detail elsewhere shortly. In the

present communication I shall confine myself to a brief account of its use in cystitis with ammoniacal fermentation of the urine. Cases of cystitis where the urine remained acid, as also cases of inflammation of the bladder, consequent upon gonorrhœa, were also cured with the drug, but it seemed to give the best results in cystitis with ammoniacal decomposition of the urine, and it is in this form of inflammation of the bladder that I can more especially recommend it to the practitioner.

Urotropin is a weak base, and appears as white crystals, soluble with some little difficulty in alcohol, but very readily soluble in water. An aqueous urotropin solution has a pleasant, sweetish taste, and gives an orange-yellow precipitate with bromine water, forming a bromine combination of the base. The reaction is well suited for the detection of urotropin, and is demonstrable in the urine even after small doses of the drug, showing that the drug passes unchanged into the bladder. The excretion takes but a short time; I have been able to obtain the reaction 15 minutes after administration of the remedy. After its stoppage the urine shows the bromine reaction for some time, the length of which is dependent upon the size of the dose administered. After a single daily dose of 0.5 grm. (7 1-2 grains) it was found for about 13 hours; after one grm. (15 grains) for about 27 hours after administration.

As regards the dosage of urotropin, my experience would show that daily doses of from 1.5 grm. (22 1-2 grains) should not be exceeded. For I have found that even when a single much larger dose was well borne its continued use for longer periods of time caused unpleasant by-effects in a number of cases. These consisted of a burning sensation in the vesical region, appearing usually after urination and radiating into the urethra, and occasionally, also, of frequent micturition. If, under these circumstances, the administration of larger doses of the drug is continued the symptoms increase in severity, and red blood corpuscles appear in the urinary sediment. But these symptoms soon disappear, and the

*A. Nicolaier, "On the Therapeutic Use of Urotropin" (Hexamethylentetramin), Deutsche Medizinische Wochenschrift, 1895, No. 34.

secretion quickly regains its normal character when the urotropin is stopped, or the dose of it is diminished in amount. Urotropin is not an expensive drug, and its use is rendered still cheaper by the fact that its manufacturers, the "Chemische Fabrik auf Actien" (formerly E. Schering), of Berlin, supply it to the trade in pastils of 0.5 grm. (7 1-2 grains) in original packages containing 20 pieces.

In cystitis, with ammoniacal fermentation of the urine, one pastil of 0.5 grm. (7 1-2 grains) dissolves in one-quarter liter (1-2 pint) of plain carbonated water, at ordinary temperature, should be administered three times a day, after meals, during the first two days. Its action is usually manifest by that time, and I am then in the habit of diminishing the daily dose to 1 grm. (15 grains), giving one pastil morning and night. Later on a daily dose of 0.5 grm. (7 1-2 grains) is sufficient in many cases.

In daily doses not exceeding 1 grm. (15 grains), urotropin is well borne for a long time; some patients affected with the uric acid diathesis have used it almost uninterruptedly, in doses of 1 grm. (15 grains) for one or two years, and one patient took 1.5 grm. (22 1-2 grains) daily for almost nine months continuously without trouble. It is especially noticeable that I have never seen any disagreeable symptoms in the gastrointestinal tract from its use.

Under the influence of urotropin there very rapidly occurs a marked change in the composition of the urine in these cases of cystitis, with ammoniacal decomposition. First, the ammoniacal smell of the freshly voided urine diminishes in intensity and soon entirely disappears. Then the reaction, not only of the fresh urine, but also of the entire daily quantity, becomes acid again. The urine becomes clearer, the triple phosphate and urate of ammonia crystals disappear, and the serious troubles, so frequently caused by the abnormal constitution of the urine, cease. The amount of pus corpuscles also diminishes; these structures may entirely disappear, but more frequently they persist,

though in diminished quantity, for a considerable time.

I desire to call especial attention to the fact that urotropin, in the human bladder, does not act by killing the micro-organisms and spores that cause the ammoniacal fermentation; it merely prevents their development. This is shown by the circumstance that, after the ammoniacal decomposition of the urine has ceased under the use of the drug for several days, it begins again after its discontinuance. The urotropin must therefore be taken steadily for some time, and then, when its use is stopped, the ammoniacal decomposition may not reappear. Thus I have observed a very severe case of cystitis, with ammoniacal decomposition of the urine, which caused the patient great pain and which was not relieved by irrigation of the bladder with disinfectant solutions and the use of internal remedies, in which the urotropin cured the fermentation and remedied the painful symptoms, and here, after three months' use of the drug, in daily doses of 0.5 grm. (7 1-2 grains) to 1 grm. (15 grains), the difficulties did not reappear after it was stopped. The freshly voided urine remained acid, and contained only small quantities of pus corpuscles.

It is a remarkable fact that the urine, voided after the ingestion of 1.0 to 1.5 grm. (15 to 22 1-2 grains) of urotropin, becomes ammoniacal at ordinary temperatures, but it remains clear, and preserves its acid reaction when kept at a temperature of 37 degrees C. (98.6 degrees F.) in the incubator; and even the addition of several drops of urine in a condition of ammoniacal fermentation several days later does not set up the same process in the specimen. Evidently there must arise from the urotropin, at the temperature of the body, some substance that hinders the development of the micro-organisms that effect the ammoniacal fermentation. It is very possible that under these circumstances formaldehyde is separated from it, which, as is well known, prevents bacterial development, even when present in the smallest quantities. But I have not as yet been able to prove this fact

with certainty, even by boiling urine that has been kept for some time at a temperature of 37 degrees C. (98.6 degrees F.) with resorcin-soda lye, which is claimed by Lebbin to be a very delicate reaction for formaldehyde.

I also desire to emphasize the fact that urotropin has been useful in my experience in cases of cystitis, with decomposition of the urine, in which even large doses of the salicylate of soda, so frequently employed in this form of bladder trouble, has been entirely useless. I have recorded two cases in the paper mentioned above which prove this. Case No. 2, in which there was a very severe cystitis, is especially noticeable. Daily doses of urotropin of 1.5 grm. (22 1-2 grains) quickly restored the acid reaction to the ammoniacal urine, and the patient's various difficulties lessened. They reappeared, however, together with the alkaline reaction and the ammoniacal smell of the urine, when the sodium salicylate, in daily doses of 6 grm. (90 grains), was substituted for the urotropin. When the latter drug was taken again the patient improved.

Urotropin does, however, form a combination with salicylic acid, to which J. A. Flexner has called attention, and which has been recommended by him for therapeutic use. I have made a number of experiments with the salicylate of urotropin, which was prepared for me by the "Chemische Fabrik auf Actien" (vorm. E. Schering), of Berlin, using it in various maladies. I shall only mention here that daily doses of 2 grm. (30 grains) can be given, but that it is not desirable to administer more than 3 grm. (45 grains) daily for longer periods, on account of the occasional unpleasant by-effects that may be caused by the urotropin. And since the salicylate of urotropin contains about 50 per cent. of salicylic acid, the amount of this latter, introduced in the above mentioned doses, will be between 1 and 1.5 grm. (15 and 22 1-2 grains). The salicylate of urotropin is, therefore, not suitable for the treatment of such

diseases as acute articular rheumatism, in which experience has shown that only large doses of salicylic acid combinations are effective. In cases where such large doses of salicylic acid, as well as urotropin are indicated, I should advise them to be given separately in appropriate quantities. In the treatment of cystitis, with ammoniacal fermentation of the urine, I see no reason to use the salicylic acid combination of urotropin. As I have said, urotropin alone acts very favorably, even in cases where large doses of sodium salicylate are entirely ineffectual.

—Reprinted from *Der Arztliche Praktiker*, Year X, 1897, No. 12.

PARESTHETIC NEURALGIA.

Osler refers to the numerous cases of paresthetic neuralgia recently recorded by Roth and others, in which there is a gradual development of burning pain and uneasy feelings and sometimes anesthesia in the antero-lateral portion of one thigh. The pain may be sufficient to prevent walking. The condition has been thought to be due to compression of the external cutaneous nerve either by the psoas muscle or otherwise. Osler records three somewhat similar cases where there was monocrural paresthesia. The patients were men, aged 32, 37 and 60 years respectively, healthy, but of nervous temperament. The illness began with a feeling of numbness or curious sensations in one leg. One patient stated that his leg felt as if burnt, sometimes "as if stuffed with foreign matter," and sometimes "as if inflamed and swollen." These symptoms were quickly followed in each patient by inability to walk more than a short distance, owing to the distressing sensations produced in the affected leg. In each case the physical examination was negative. The duration of the affection varied in these cases from one month to eight years.

—Journ. of Nerv. and Ment. Dis.,
March, 1897.

Current Surgical literature.

T. H. MANLEY, M. D., New York, Editor.

AN EXCELLENT ANTISEPTIC FOR MINOR SURGERY.

BY CHARLES H. SPRINGER, M. D.,
Cleveland, O.

The following case will serve to illustrate the value of europhen in the treatment of chronic ulcers of the leg: The patient presented five varicose ulcers on the right leg, which had been present for 18 months and were about the size of a silver dollar, two being larger and three smaller. They extended down to the muscular tissue and discharged a foul, watery, purulent secretion. The edges were red and inflamed, and the skin infiltrated and reddened over the entire surface of the limb from the ankle to the knee. Contrary to the rule the ulcers were situated at the upper third of the leg, on its outer aspect and not near the ankle.

Under the use of europhen they speedily acquired a healthy character, ceased to discharge pus, and in a short time healed over, except one, which has since healed entirely under the internal use of ichthyol and proteiodide of mercury. Europhen is the only "iodine-antiseptic" I have used that to me appears to have none of the objectionable features of the others. It is non-poisonous, nearly odorless, non-escharotic, unirritating, causes no pain, but actually alleviating it and producing no eruption on the skin. It is soluble in fixed oils and is a more powerful antiseptic in this solution than as a powder.

In two cases of incised wounds of the hand, severing the palma arch, and in a case of long deep scalp wound, which were dressed by dusting on europhen, healing occurred rapidly by first intention. Europhen

also appears to have an anesthetic action, alleviating pain in the parts when applied.

FORCED SPINAL CORRECTION CONDEMNED.

Menard, in a quite recent communication (11th May, 1897) to the Academy, absolutely condemns the operation, and considers it dangerous and inefficient. He has experimented on the dead body and examined museum specimens, and come to the following conclusions:

1. That, notwithstanding the dislocation produced by the "straightening," it is quite true that the cord and membranes remain intact.
2. That the forced straightening necessarily opens up the two segments of the diseased bony column and consequently forms a large gap, which measures, according to Menard, two, four or six centimeters, or more.
3. To make a perfect recovery this gap should get filled up with solid bony callus; and should this callus not form the cicatrix is only fibrous and retractile.
4. That this latter is what happens is ascertained from post-mortem and museum examinations; that the periosteum of the vertebrae is profoundly altered or destroyed and does not produce new bony tissue at any period in the evolution of the disease.

From these various communications Monod sums us thus: That in recent cases, and where the deformity is not great, the operation holds out a certain prospect of success, but in cases of long standing, and where several vertebrae are involved, the gap produced after straightening is

too great to be followed by other than fibrous tissue, so that there is great risk of the deformity returning when the support is removed.

In the Lancet (7th August, 1897) Jones and Tubby are reported as having demonstrated in the Royal Southern Hospital, Liverpool, on a series of cases the manipulations for immediate reduction of deformity. The children's ages varied from 3 to 8 years, and some of the curvatures were extreme. The deformities were reduced with considerable facility. . . . An exact estimate of the value of the treatment is impossible at present.

THE TRENDELENBURG POSTURE.

Keen, of Philadelphia (Annals of Surgery, July, 1897), advises the Trendelenburg posture during all operations involving directly or indirectly the cavities of the mouth, nose and trachea, and reports two cases, one of removal of epithelioma and the other of sarcoma of the tonsil, in illustration.

The patient is placed at an angle of 35 to 45 degrees, arrangements being made by means of a shoulder brace to prevent slipping. The advantages of the position are summarized as follows:

1. There is little danger of an aspiration pneumonia following the operation.
2. A preliminary tracheotomy is avoided—no slight advantage, as a tracheotomy wound is always necessarily an infected wound, and adds, therefore, greatly to the danger of the principal wound.
3. There is little difficulty in giving the anesthetic. An ordinary Allis inhaler is used until the patient is deeply anesthetised, when the inhaler is laid aside and chloroform given by means of a good-sized pledge of cotton held in ring forceps.
4. The mouth being gagged open, if the operation is intra-oral, the interior of the cavity is very readily seen, especially if the gag, as in Dr. Mear's mouth-gag, holds a tongue-depressor.

5. There is no spluttering of blood into the face of the operator, and therefore no interruption to the operation.

OPERATIVE TREATMENT OF GENERAL SUPPURATIVE PERITONITIS.

J. M. T. Finney describes a new operative procedure which he has successfully employed in five cases of general suppurative peritonitis, including one following perforating typhoid ulcer. He makes a long incision, draws all the coils of intestine outside the abdominal cavity ("practically disemboweling the patient for the time being"), and then thoroughly and systematically wipes out the peritoneal sac with large pledgets of gauze wrung out of hot salt solution, paying special attention to the pelvic portion. Next, the small intestine is cleansed loop by loop and replaced in the abdomen, and the incision closed save at one point, where a gauze drain protrudes. In order that a fair chance of success may be given, the operation should be performed within a few hours of the intestinal perforation which leads to the peritonitis.

—Johns Hopkins Hosp., Bull., July, '97.

DR. JOHN B. JUSTICE, OF QUINCY, ILL.

We were very much gratified to note through the Western exchanges that our good friend, Dr. John B. Justice, has been appointed first assistant surgeon to St. Mary's Hospital, in Quincy, Ill. Dr. Justice studied under several of the most noted pathologists and surgeons of New York.

He is a prominent and active member of the National Association of Railway Surgeons, but, what is better than all, he is a conscientious, honorable and upright physician of lofty sentiments and strict integrity.

We are confident that his confreres in his new field and the good Sisters will find him well worthy of their esteem and confidence.

Current Literature in Obstetrics and Gynecology.

CONSTIPATION IN THE PUERPERIUM.

Hubert writes on alarming symptoms in childbed, which depend entirely on constipation and disappear when the bowels are opened. No doubt the bowels are naturally slow to act after delivery. Sometimes the retention of fecal matter simulates metrorrhagitis. Not only is there loss of appetite with foul tongue and breath, but tympanitic distension of the abdomen sets in with rigors, and temperature occasionally as high as 104 degrees. When a purge succeeds all these symptoms vanish. If the constipation be neglected true peritonitis may undoubtedly set in. This complication is not the peritonitis of puerperal infection due to the streptococcus, but a peritonitis of stercoral infection where the offending germ is the bacillus coli, which passing through the intestine infects the serous coat. There is also a later form of constipation in the puerperium, accompanied with hemorrhages, hemorrhoids and great pelvic congestion.

—*Revue Medicale, Louvain, June 30, '97.*

OPERATION FOR TUBAL PREGNANCY—DEATH.

Blanc reports an abdominal section performed by Blum on a multipara, where a fetal sac of the left tube had ruptured, pelvic inflammation existing for some time. The right tube was full of blood, and it was thought right to remove it, as well as the gestation sac. Free intestinal adhesions were detected and liberated. The pregnancy had lasted about two months; the patient had not suffered from melena, vomiting or other sign of disease in the

gastro-intestinal tract. On the fourth day tympanites set in, and on the ninth the patient died with symptoms of acute peritonitis. A large perforating ulcer was found at the back of the small intestine at the junction of the duodenum and jejunum. It was a typical duodenal ulcer, but unusually wide, the perforation itself measuring nearly one inch in its widest diameter.

—*Archives Generales de Medecine, September, 1896.*

CONGENITAL ABSENCE OF UTERUS AND VAGINA.

W. L. Burrage reports the case of a girl of 19, engaged to be married, who had never menstruated and had had no menstrual molimen. The external genital organs, save for the absence of the introitus vaginae and hymen, were normal in appearance. In the position of the introitus the mucous membrane was redundant and wrinkled, and in the middle was a small opening leading into a pocket 1.5 cm. deep, from which a milky white secretion could be expressed. Careful recto-abdominal examination under anesthesia revealed no uterus or appendages. At the patient's request an operation was performed, having for its object the separation of the rectum from the bladder and the formation of a canal between the two lined flaps taken from the nymphae and perineum. After some delay the artificial vagina healed and presented a cavity 4.5 cm. deep and 2.5 cm. in diameter. Two years later she and her husband expressed themselves satisfied with the result. They have since adopted a 4-months-old baby.

—*American Journ. Med. Sci., March, '97.*



Miscellany.

SPINAL SURGERY.

Trapp, of Helferich's Clinic, relates an interesting case successfully treated by laminectomy. The extension treatment of Pott's disease with paralysis yields a large proportion of permanent recoveries. There are some cases, however, which resist this treatment. The total number of such cases operated upon is, in the author's opinion, small, and still fewer cases have been cured.

Case.—A man aged 20 fell through three metres onto the buttocks. Shortly after this he noticed a prominence over the dorsal spine. As this increased, a weakness in the legs appeared. When admitted some ten months later there was a considerable loss of power in the legs, with increased knee-jerks and ankle clonus. The rectum and bladder were unaffected. Extension was applied and improvement followed, the spastic symptoms diminishing. Two months later a sudden deterioration in his condition occurred. The spastic paralysis became much more marked, and slight bladder symptoms supervened. There were evening rises of temperature. Laminectomy was performed, the spines and parts of the laminae of the seventh and eighth dorsal vertebrae were removed. The contents of the spinal canal then protruded at once into the opening. No pulsation could be felt. The dura mater was opened and one teaspoonful of a thick yellow pus was evacuated. The foot clonus disappeared at once on the right side, and the patellar clonus became less on both sides. In a month's time the legs could be lifted some distance from the bed, and four weeks later he began to attempt to walk. In four months after the operation, in January, 1897, he could walk alone and without support. The development of tuberculous disease is known to follow upon injury. The author then refers to the edema theory of paralysis in cases of vertebral disease. The sudden increase

in the symptoms was probably due to the rupture of a tuberculous focus through the dura mater, which thus produced an increasing compression paraplegia. In this case it is shown that intradural tuberculous disease may be treated by operation with success. Helferich does not remove the whole of the arch, thus leaving greater support for the spinal column. Extension was useful in the after treatment. A plaster of paris case was eventually applied. The importance of the case lies in (1) the behavior of the paralysis and (2) the recovery after operation, notwithstanding the intrameningeal site of the abscess. A similar case has not, within the author's knowledge, been put on record.

—Munch. Med. Woch., July 6, 1897.

TREATMENT OF ANOSMIA.

Bibard has recently taken up the study of this subject. Among the causes of anosmia he refers to blows on the head, which are much more frequent than is generally supposed as a cause of loss of the sense of smell. They may or may not be accompanied by fracture, for, according to the author's observations, a severe blow on the back of the head, as from a fall, is quite capable of causing laceration of the Schneiderian membrane or tearing of the olfactory nerves in their passage through the lamina cribrosa of the ethmoid. In cases of essential anosmia without nasal lesion the author has found the following treatment produce good results: Nasal irrigation every morning, with warm water by means of Weber's siphon; to snuff three times the following powder: Sulphate of quinine, 10 gr.; subnitrate of bismuth, 10 g.; thirdly, electricity. In cases of hysterical anosmia the last is the most effective, and is employed in the form of faradization to the root of the nose, and this must be employed so as to produce actual pain.

—These de Paris, 1897.